**Problems Statements**

For the binary images of a spade (card\_spade.tif), club (card\_club.tif), heart (card\_heart.tif), and diamond (card\_diamond.tif), generate a table of features, to include the centroid, rectangular extent (width and height), area, perimeter, and circularity.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Properties | Centroid | | Rectangular Extent | | Area  (in pixels) | Perimeter  (in pixels) | Circularity |
| X coordinate | Y  coordinate | Width(X-dim) | Height(Y-dim) |
| CLUB | 252.5756 | 250.1304 | 110 | 149 | 8786 | 517.9480(498) | .4116 |
| DIAMOND | 260.5721 | 231.1567 | 100 | 175 | 8566 | 416.1910(370) | .6214 |
| HEART | 255.0293 | 254.5416 | 91 | 145 | 8621 | 396.5870(368) | .6888 |
| SPADE | 250.5051 | 245.8310 | 94 | 154 | 8224 | 515.7410(490) | .3885 |